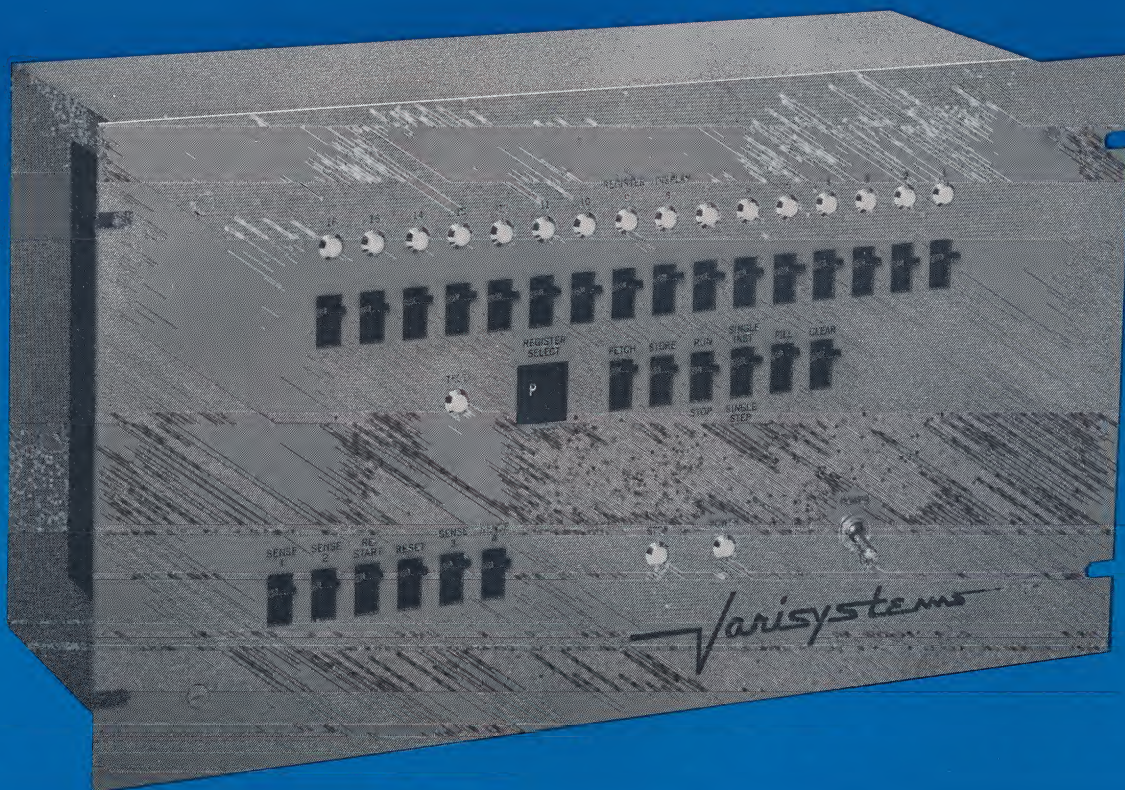


PAC-16

PROGRAMABLE, ADAPTABLE
CONTROLLER FOR DIGITAL
SYSTEMS DESIGNERS

Varisystems



The PAC-16 is a low cost, versatile, digital controller which is readily adaptable to system interfacing requirements and provides unmatched flexibility. Over 35% of available logic space is reserved for customer logic requirements. Features include: Format Control via software; 1 K or 4 K Random Access Core Memory expandable to 16 K; T²L Logic and I/O Structure which allows communication with a large number of peripherals via a common BUS structure. Typical applications include a direct access, mass storage system with random access core memory buffer for word editing PAC-16 can be used as a systems controller or as a "stand alone" mini-computer.

Varisystems® Corporation 207 Newtown Road, Plainview, New York 11803 (516) 293-6515

PAC-16 SPECIFICATIONS

Type of Controller: Stored program, binary, parallel

Instruction Format: Paired words, single address, direct-addressable memory

Word Length: Byte oriented, 16 bits

Arithmetic: Two's complement

Memory: Magnetic core, 1024 x 8 bits, expandable to 4096 x 8 bits

Speed: One microsecond clock.
Memory referenced instructions: 3 microseconds; input/output instructions: 4 microseconds

Input/Output: Two interrupt lines (optional)
Six programmable sense lines (expandable to 256)
Three input channels and one output channel
Four programmable sequential timing pulses
One direct memory access channel (optional)
A block transfer can be incorporated for each peripheral unit (optional)

Circuitry: MSI — Dual in-line T²L Integrated Circuits, mounted in wire-wrapped sockets

Signal Levels: Logic ZERO, 0 VDC
Logic ONE, +5 VDC

External Power

Recommended: 1K memory

+ 5 VDC, 6.5 Amperes
+12 VDC, 3.5 Amperes
- 5 VDC, 0.5 Amperes

4K memory

+ 5 VDC, 6.5 Amperes
+15 VDC, 3.5 Amperes
- 5 VDC, 0.5 Amperes

Environment: Temperature 0° to 50° C

Dimensions: 19 x 10½ x 7 inches, mountable in standard RETMA 19-inch rack

Weight 18 lbs.

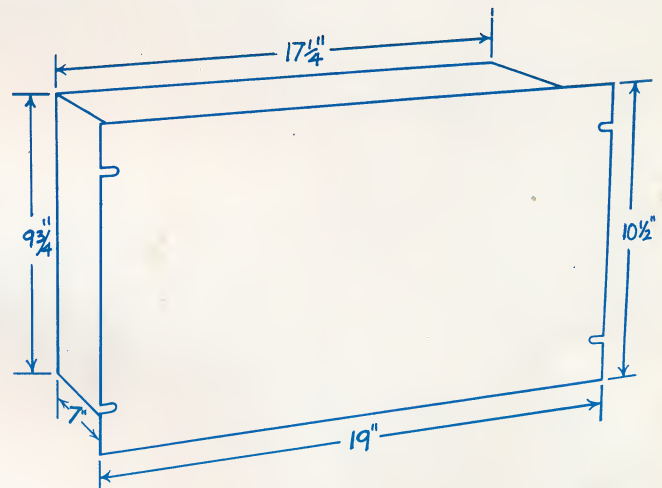
SOFTWARE

PAC Assembler — to be run on Univac 1108 computer directly or via remote terminal.

Maintenance Diagnostics — provides performance test and fault isolation when used in conjunction with front panel controls and indicators.

INTERFACES AVAILABLE —

Control Data Corporation 9421, 9432 and 9434 movable head Disc Drives; INVAC 60 CPS Paper Tape Reader; General Electric PTR-70; (300, 500, 1000 characters/second); Digitronics 2540 PTR; Teletype BPRE-110 Tape Punch; Superior Electric Slosyn Motors; United Shoe Stepping Motors, Path 1200 Printer and Potter HSP 3502 Printer. Purchasers will be furnished with follow-on application notes as additional interfaces become available.



INSTRUCTION SET

MNEMONIC SKIP

SLNP ACC₁₆=0
SKU SKIP
NOP NO-OP
SKM ACC₁₆=1
SKP ACC₁₆=0
SKZ ACC₁₆=0
SKLM ACC₈=0
SKLP ACC₈=0
SKLZ ACC₈=0
SHZ ACC₉ 16=0
SKNA A=0
SKNB B=0
SKG SKIP IF C≠0
SKD SKIP IF D≠0
SKE SKIP IF E≠0

ROR (RIGHT ROTATE)
RLT (LEFT ROTATE)
NOP (NOP)
SRT (SHIFT RIGHT)
ALS (SHIFT LEFT)
CONE (ONES CMP)
CTWO (TWOS CMP)
JST (JUMP AND STORE)
LA (LOAD ADDR)
INC (INCREMENT AND SKIP)
LDA (LOAD ACC) 8 BITS
LDD (LOAD ACC) 16 BITS
STA (STORE ADDR)
ADD (ADD)
MIC (MICRO INS)
INCA (INCREMENT ACC)
DECA (DECREMENT ACC)

JMP (JUMP)
STO (STORE ACC)
IOC (INPUT-OUTPUT)

SPARE NO. 1
SPARE NO. 2
SPARE NO. 3
SPARE NO. 4

OPTIONS	OP CODE
CODE Y	5
MAP Y	B
SKEX Y	F

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